

ROBOTIC PARISON HANDLING METHOD AND APPARATUS

Abstract of the Disclosure

A release mechanism operating to release molded articles from a third mold portion includes a guide coupled to the second mold portion forming a cam track. A cam follower coupled to the surfaces of the third mold portion, which are holding the molded articles, is engaged in the cam track when the second and third mold portions are within a pre-selected distance of each other. The cam follower interacts with the cam track to cause some initial movement of the surfaces holding the molded articles to a pre-release position for the holding surfaces so that the molded articles are loosely retained by the holding surfaces. A power operator, carried by the third mold portion and coupled to the article holding surfaces, is responsive to a signal to move the article holding surfaces from the pre-release position to a full release position when a molded article receiver is suitably positioned to receive the molded articles. The molded article receiver includes receiver tubes for receiving the molded articles. The receiver tubes have an open forward end configured to receive a molded article, a closed rearward end including a surface contact element movably situated with respect to the forward end. The surface contact element is configured to conform to a portion of the surface of the molded article. A vacuum duct couples the closed rearward end to a source of vacuum for assisting in the retention of the molded articles within the receiver tubes. An air cylinder is coupled to each surface contact element, and a pressure duct couples to each air cylinder to a source of air pressure for controlling the position of the surface contact element with respect to the forward end of the receiving tube.